TIP PROJECT: B-4640

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4640	EC-1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION

STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

PLAN FOR PROPOSED

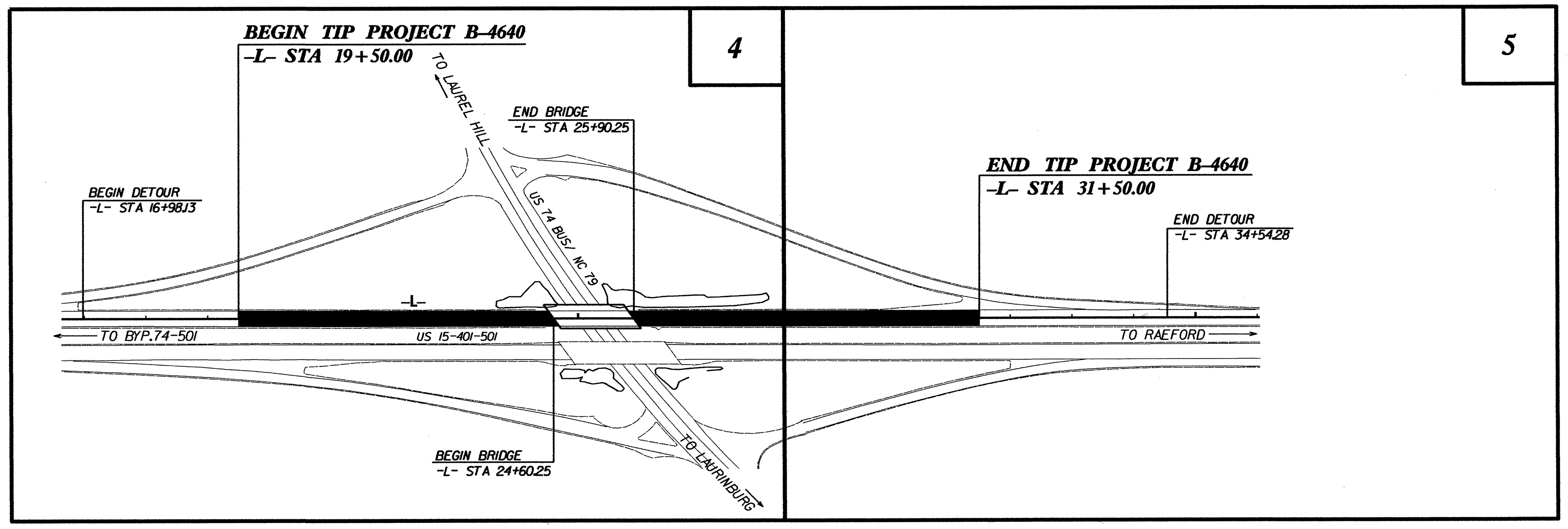
HIGHWAY EROSION CONTROL

SCOTLAND COUNTY

NAD 83

LOCATION: BRIDGE NO. 39 OVER US 74 BUS. AND NC 79 ON US 15-401-501

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

GRAPHIC SCALE

0

PLANS

0

PROFILE (HORIZONTAL)

0

PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared In the Office of:

ROADSIDE ENVIRONMENTAL UNIT

1 South Wilmington St.
Raleigh, NC 27611

2012 STANDARD SPECIFICATIONS

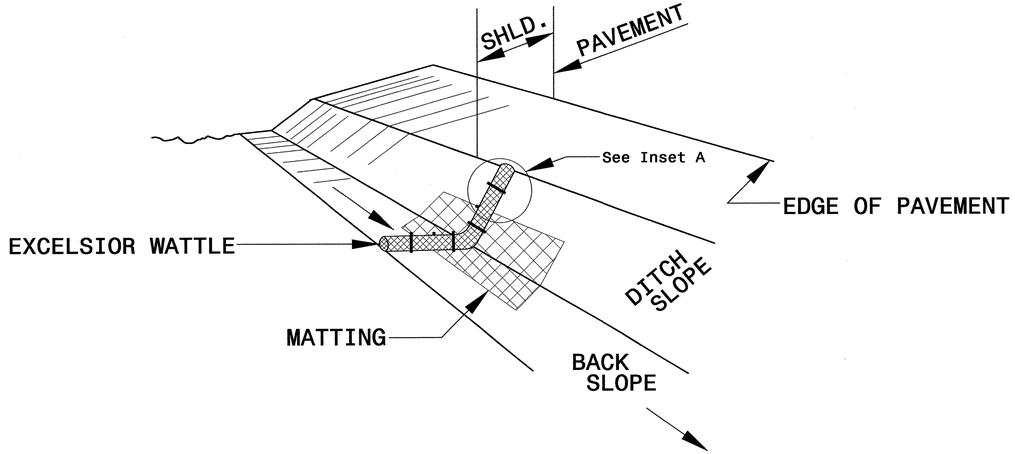
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

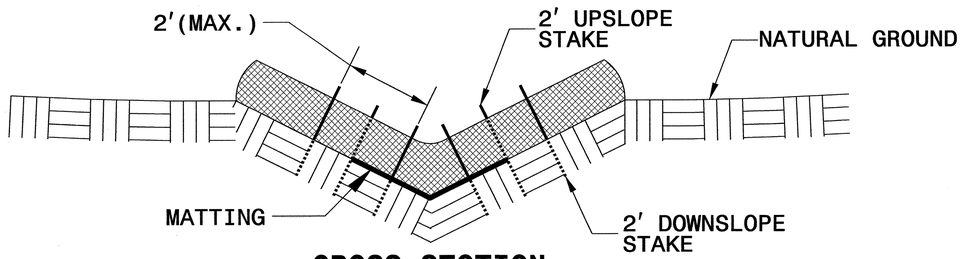
1604.01	Railroad Erosion Control Detail
1605.01	Temporary Silt Fence
1606.01	Special Sediment Control Fence
1607.01	Gravel Construction Entrance
1622.01	Temporary Berms and Slope Drains
1630.01	Riser Basin
1630.02	Silt Basin Type B
1630.03	Temporary Silt Ditch
1630.04	Stilling Basin
1630.05	Temporary Diversion
1630.06	Special Stilling Basin
1631.01	Matting Installation
1632.01	Rock Inlet Sediment Trap Type A
1632.02	Rock Inlet Sediment Trap Type B
1632.03	Rock Inlet Sediment Trap Type C
1633.01	Temporary Rock Silt Check Type A
1633.02	Temporary Rock Silt Check Type B
1634.01	Temporary Rock Sediment Dam Type A
1634.02	Temporary Rock Sediment Dam Type B
1635.01	Rock Pipe Inlet Sediment Trap Type A
1635.02	Rock Pipe Inlet Sediment Trap Type B
1640.01	Coir Fiber Baffle
1645.01	Temporary Stream Crossing

PROJECT REFERENCE NO.	SHEET NO.
B-4640	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

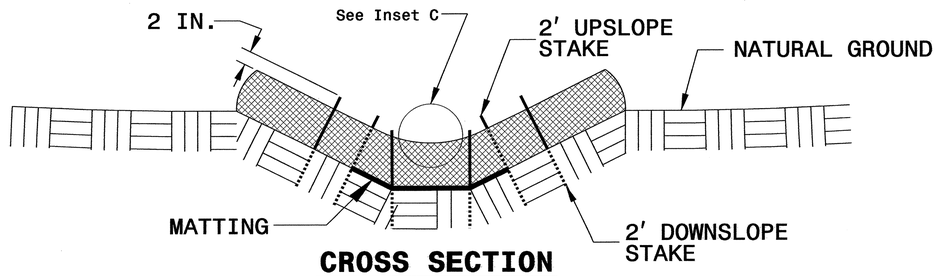
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

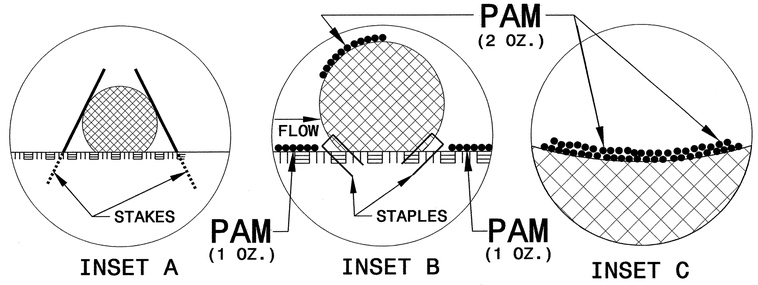
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

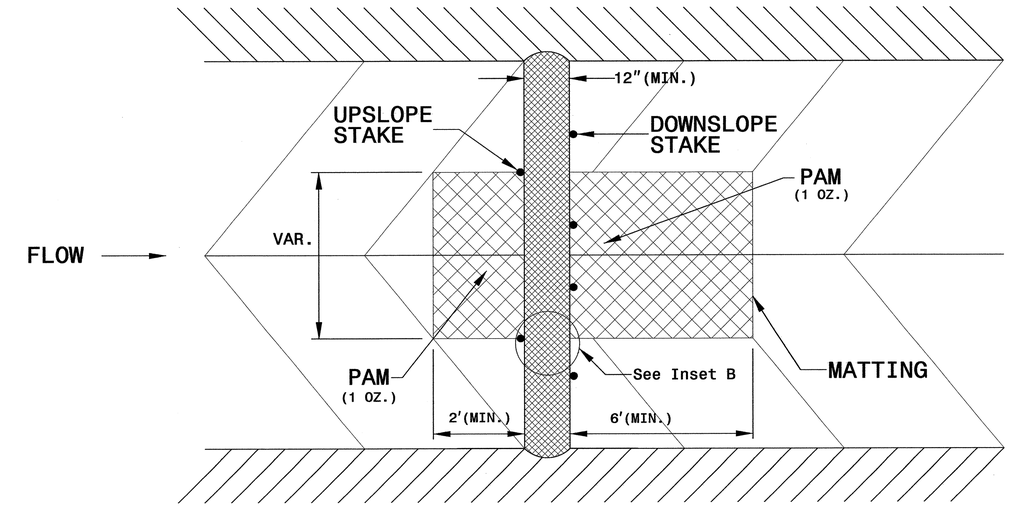
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

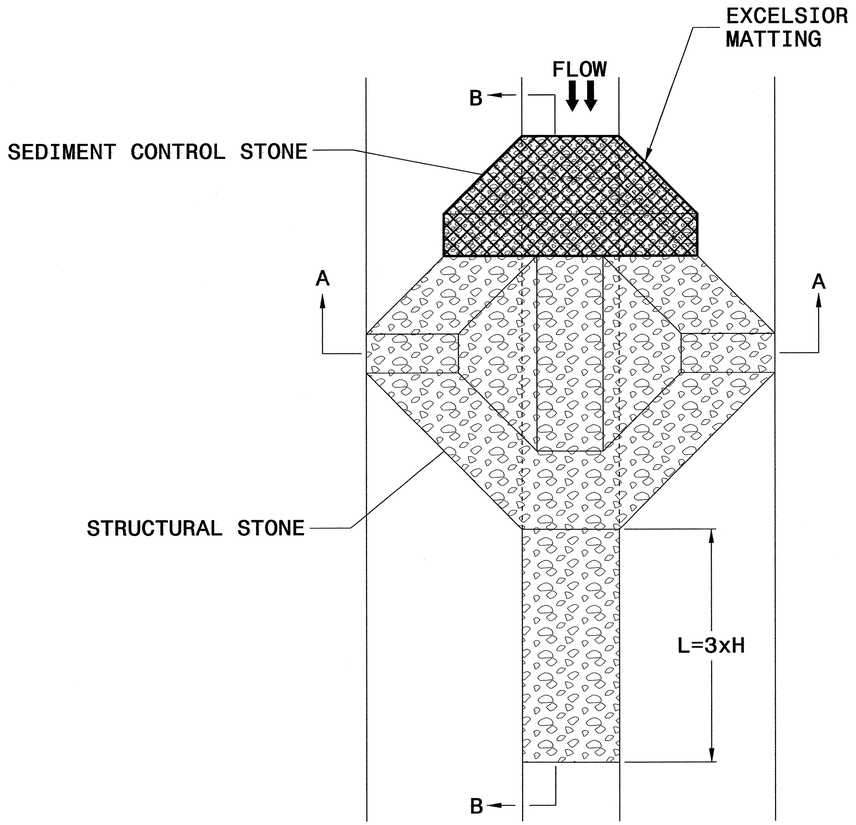




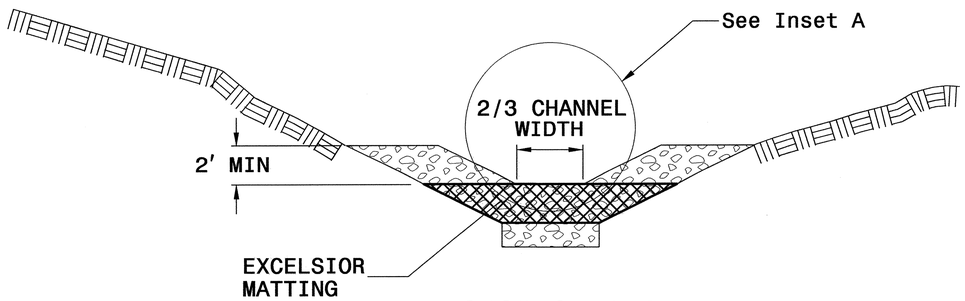
TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
B-4640	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



PLAN



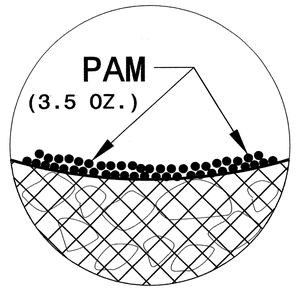
SECTION A-A

NOTES

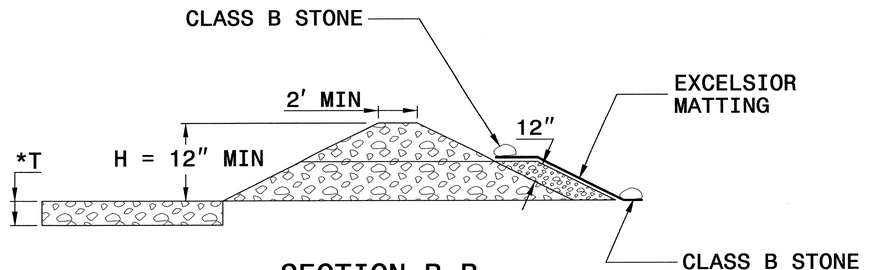
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

INITIALLY APPLY 3.5 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION B-B

*T = 12" MIN., 18" MAX.

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
B-4640	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

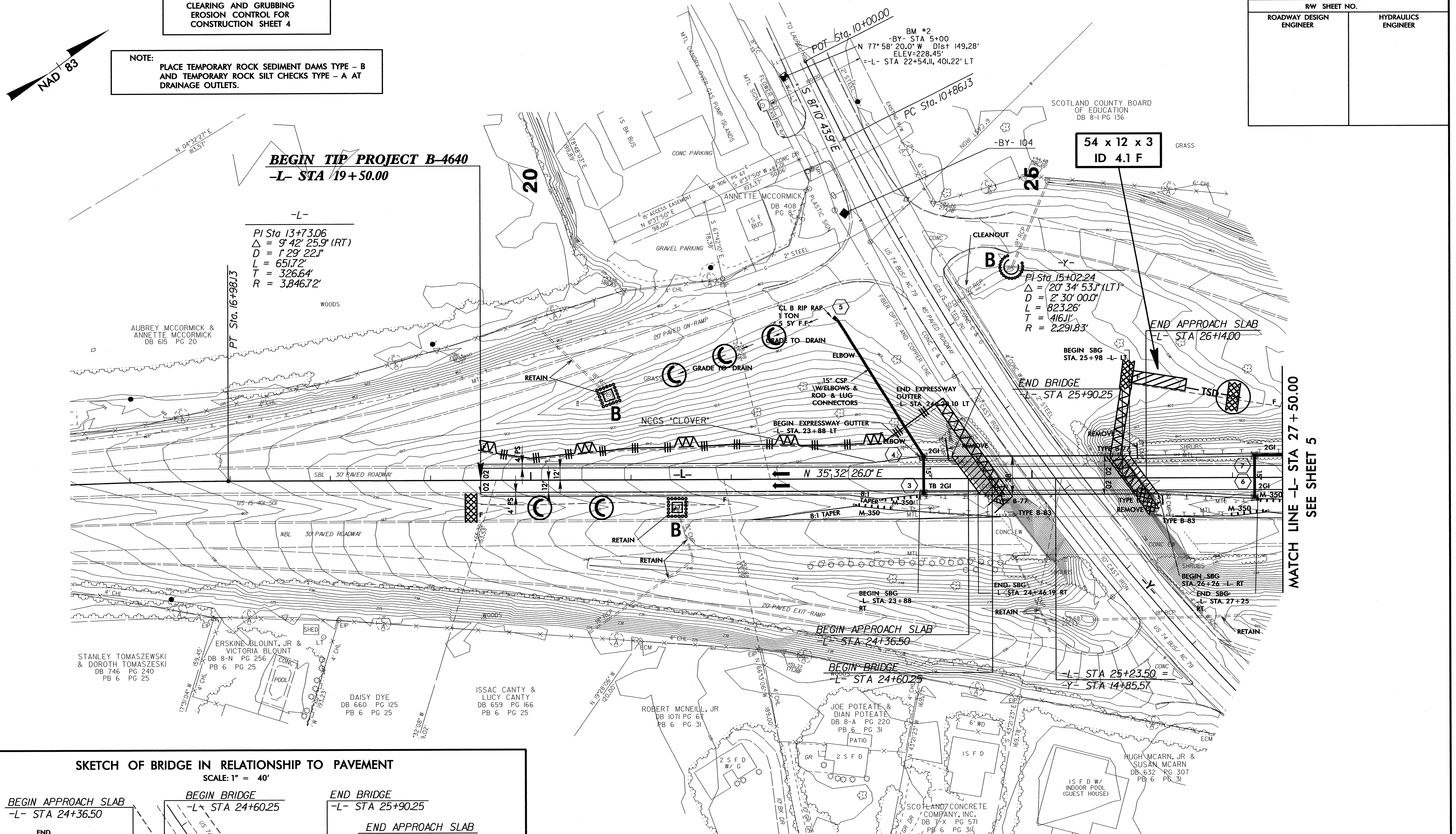
SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT REFERENCE NO.	SHEET NO.
B-4640	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

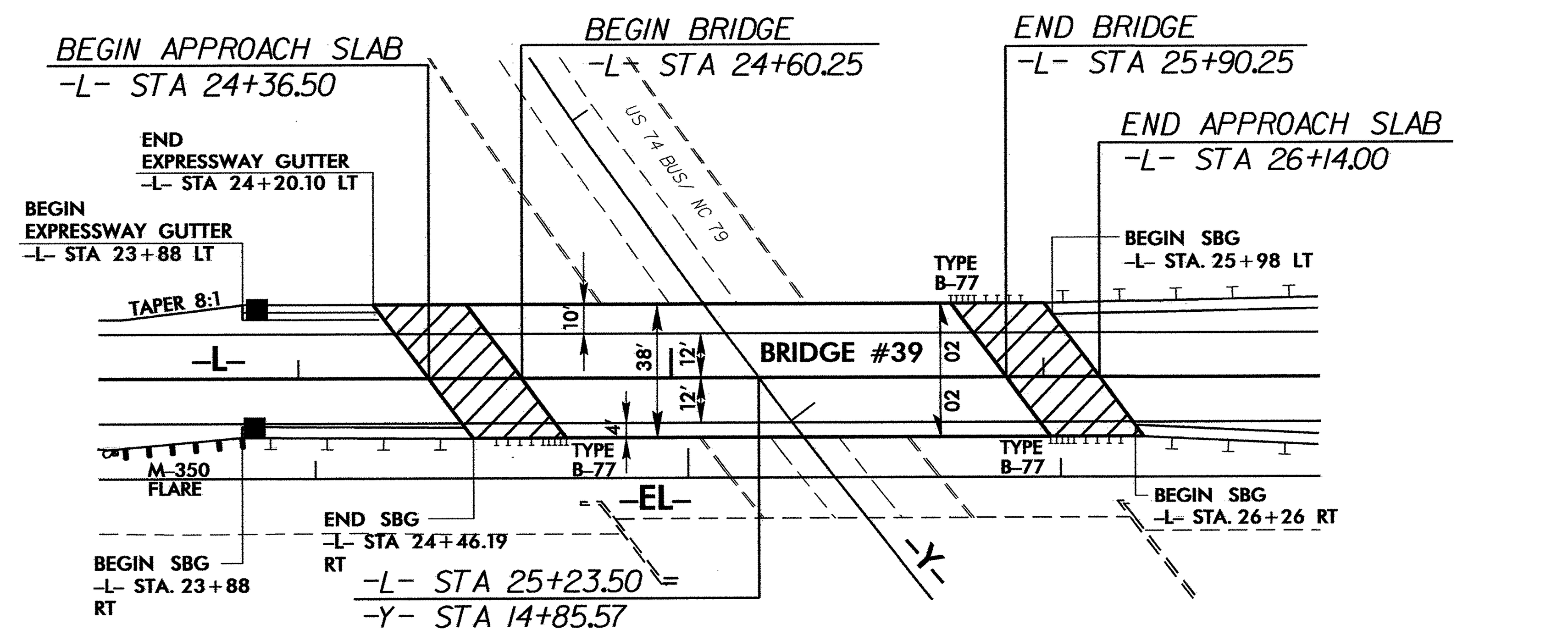
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.



NAD 83
BEGIN TIP PROJECT B-4640
-L- STA 19+50.00
-L-
PI Sta 13+73.06
△ = 9° 42' 25.9" (RT)
D = 1° 29' 22.1"
L = 651.72'
T = 326.64'
R = 3,846.72'
PT Sta. 16+98.13
POT Sta. 10+00.00
PC Sta. 10+86.13
BM #2
-BY- STA 5+00
N 77° 58' 20.0" W Dist 149.28'
ELEV=228.45'
=-L- STA 22+54.11, 401.22' LT
S 81° 10' 43.9" E
-BY- 104
SCOTLAND COUNTY BOARD OF EDUCATION
DB 8-I PG 136
54 x 12 x 3
ID 4.1 F
-Y-
PI Sta 15+02.24
△ = (20° 34' 53.1" (LT)
D = 2° 30' 00.0"
L = 823.26'
T = 416.11'
R = 2,291.83'
END APPROACH SLAB
-L- STA 26+14.00
END BRIDGE
-L- STA 25+90.25
BEGIN SBG
STA. 25+98 -L- LT
MATCH LINE -L- STA 27+50.00
SEE SHEET 5
N 35° 32' 26.0" E
ANNETTE MCCORMICK
DB 408 PG 8
AUBREY MCCORMICK & ANNETTE MCCORMICK
DB 615 PG 20
NCGS "CLOVER"
CL B RIP RAP
1 TON
5 SY F.F.
GRADE TO DRAIN
15" CSP W/ELBOWS & ROD & LUG CONNECTORS
END EXPRESSWAY GUTTER
BEGIN EXPRESSWAY GUTTER
-L- STA. 23+88 LT
RETAIN
CLEANOUT
BEGIN SBG
-L- STA. 23+88
RT
END SBG
-L- STA. 24+46.19 RT
BEGIN SBG
STA. 26+26 -L- RT
END SBG
-L- STA. 27+25
RT
BEGIN APPROACH SLAB
-L- STA 24+36.50
BEGIN BRIDGE
-L- STA 24+60.25
-L- STA 25+23.50 =
-Y- STA 14+85.57
US 74 BUS/ NC 79
STANLEY TOMASZEWSKI & DOROTH TOMASZESKI
DB 746 PG 240
PB 6 PG 25
ERSKINE BLOUNT, JR & VICTORIA BLOUNT
DB 8-N PG 256
PB 6 PG 25
DAISY DYE
DB 660 PG 125
PB 6 PG 25
ISSAC CANTY & LUCY CANTY
DB 659 PG 166
PB 6 PG 25
ROBERT MCNEILL, JR
DB 1071 PG 67
PB 6 PG 31
JOE POTEATE & DIAN POTEATE
DB 8-A PG 220
PB 6 PG 31
SCOTLAND CONCRETE COMPANY, INC.
DB 7-X PG 571
PB 6 PG 31
HUGH MCARN, JR & SUSAN MCARN
DB 632 PG 307
PB 6 PG 31

SKETCH OF BRIDGE IN RELATIONSHIP TO PAVEMENT

SCALE: 1" = 40'



BEGIN APPROACH SLAB
-L- STA 24+36.50
BEGIN BRIDGE
-L- STA 24+60.25
END BRIDGE
-L- STA 25+90.25
END APPROACH SLAB
-L- STA 26+14.00
END EXPRESSWAY GUTTER
-L- STA 24+20.10 LT
BEGIN EXPRESSWAY GUTTER
-L- STA 23+88 LT
BRIDGE #39
BEGIN SBG
-L- STA. 25+98 LT
TYPE B-77
M-350 FLARE
END SBG
-L- STA 24+46.19 RT
BEGIN SBG
-L- STA. 26+26 RT
BEGIN SBG
-L- STA. 23+88 RT
-L- STA 25+23.50 =
-Y- STA 14+85.57

FOR -L- PROFILE, SEE SHEET 6
FOR DETOUR, SEE SHEETS 2B AND 2C
FOR STRUCTURE PLANS, SEE SHEET S-1 TO S-

5/14/99

21-OCT-2011 14:4
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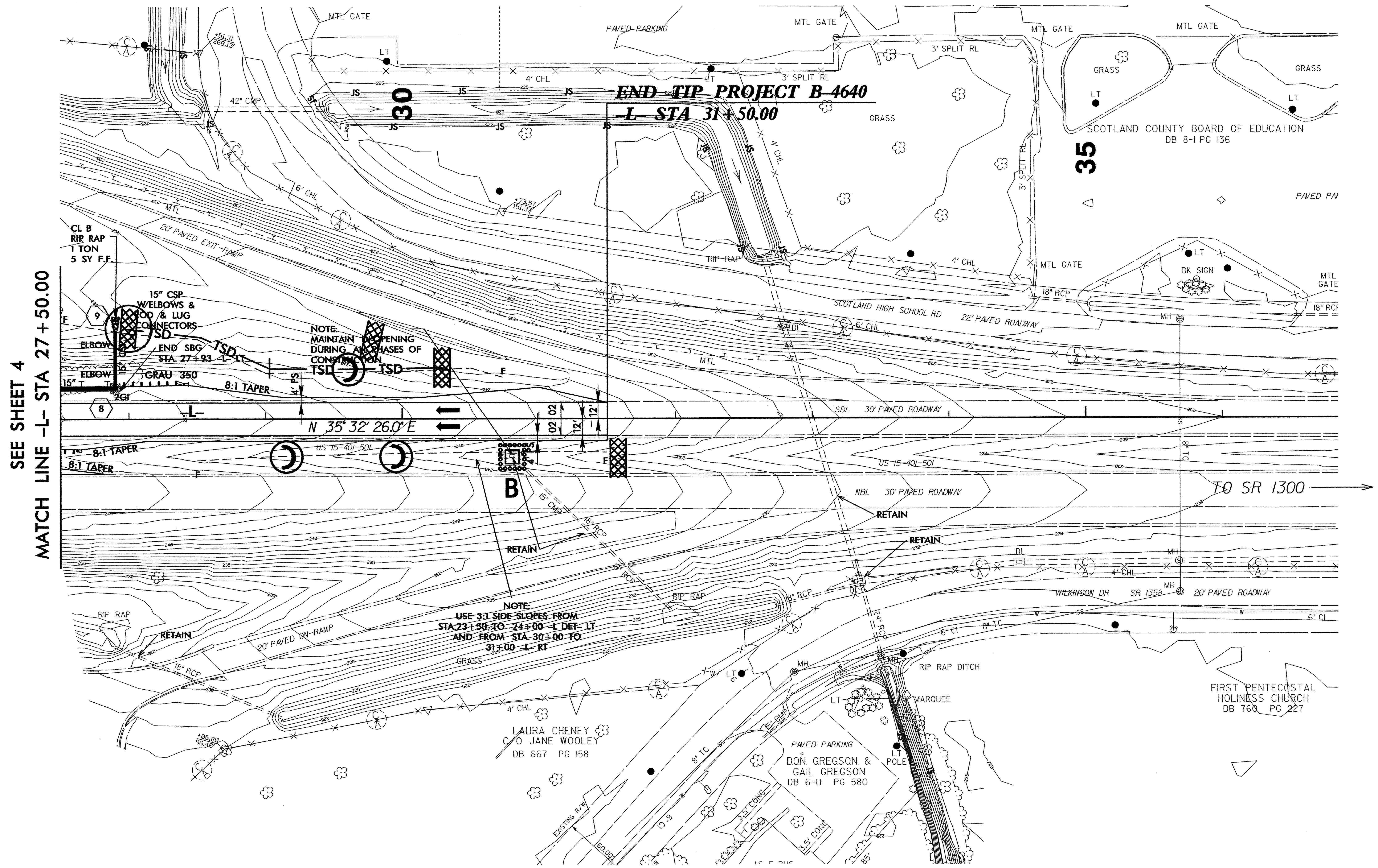
PROJECT REFERENCE NO.	SHEET NO.
B-4640	EC-5/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5/14/99

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

NAD 83



FOR -L- PROFILE, SEE SHEET 6
FOR DETOUR, SEE SHEETS 2B AND 2C

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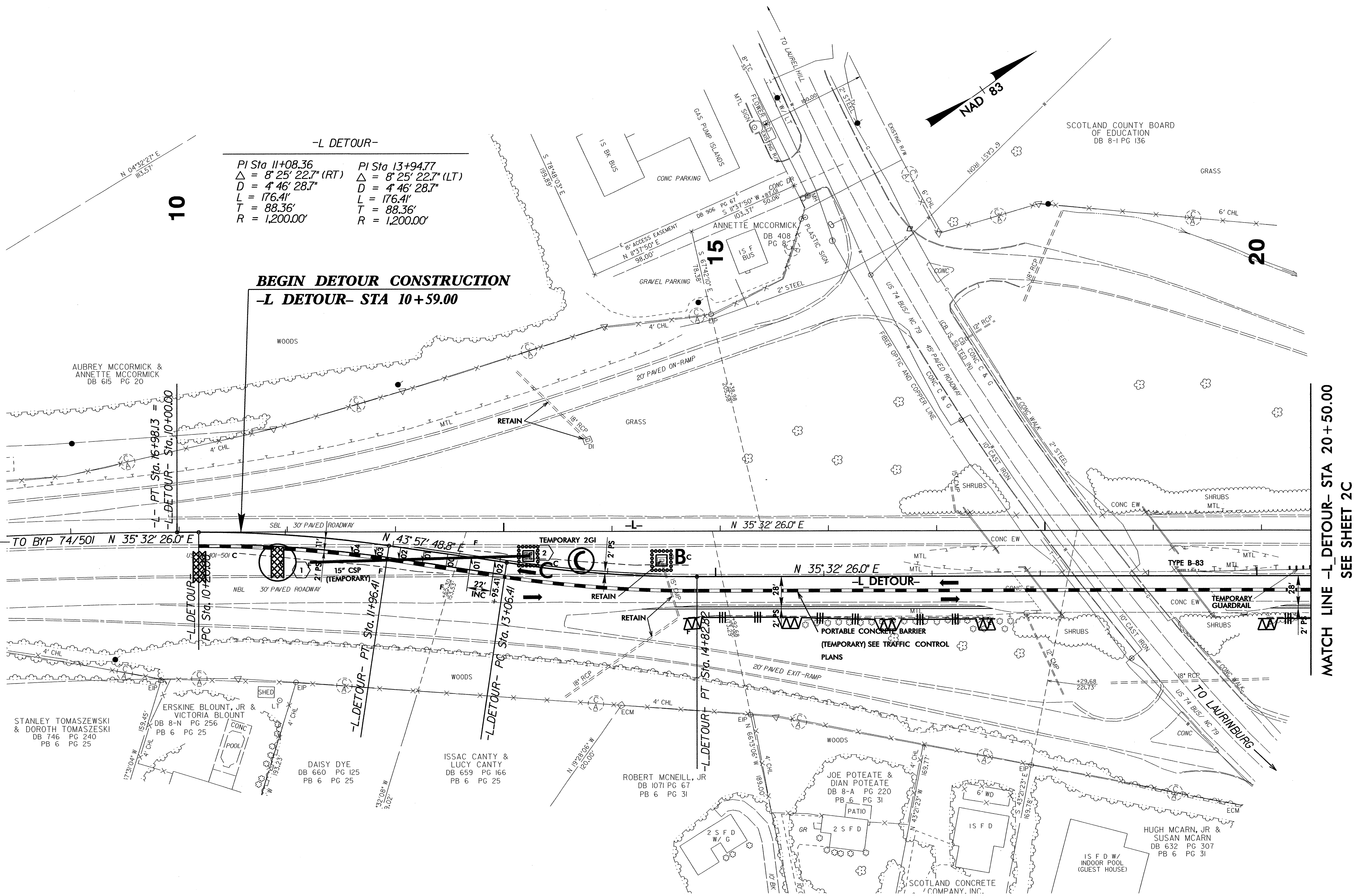
-L_DETOUR- PLAN SHEET

PROJECT REFERENCE NO.	SHEET NO.
B-4640	EC-6/CONST.2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L DETOUR-
PI Sta 11+08.36
Δ = 8° 25' 22.7" (RT)
D = 4° 46' 28.7"
L = 176.41'
T = 88.36'
R = 1,200.00'
PI Sta 13+94.77
Δ = 8° 25' 22.7" (LT)
D = 4° 46' 28.7"
L = 176.41'
T = 88.36'
R = 1,200.00'
BEGIN DETOUR CONSTRUCTION
-L DETOUR- STA 10+59.00
NAD 83
10
15
20
SCOTLAND COUNTY BOARD OF EDUCATION
DB 8-1 PG 136
ANNETTE McCORMICK
DB 408 PG 8
AUBREY McCORMICK & ANNETTE McCORMICK
DB 615 PG 20
TO LAUREL HILL
GAS PUMP ISLANDS
CONC PARKING
GRAVEL PARKING
PLASTIC SIGN
US 74 BUS/ NC 79
45' PAVED ROADWAY
FIBER OPTIC AND COPPER LINE
20' PAVED ON-RAMP
WOODS
GRASS
RETAIN
-L- PT Sta. 16+98.13 = -L_DETOUR- Sta. 10+00.00
TO BYP 74/501 N 35° 32' 26.0" E
N 43° 57' 48.8" E
-L- N 35° 32' 26.0" E
SBL 30' PAVED ROADWAY
NBL 30' PAVED ROADWAY
TEMPORARY 2GI
15" CSP (TEMPORARY)
N 35° 32' 26.0" E
-L DETOUR-
-L_DETOUR- PC Sta. 10+59.00
-L_DETOUR- PT Sta. 11+96.41
-L_DETOUR- PC Sta. 13+06.41
-L_DETOUR- PT Sta. 14+82.82
PORTABLE CONCRETE BARRIER (TEMPORARY) SEE TRAFFIC CONTROL PLANS
TYPE B-83
TEMPORARY GUARDRAIL
SHRUBS
CONC EW
20' PAVED EXIT-RAMP
TO LAURINBURG
STANLEY TOMASZEWSKI & DOROTHY TOMASZESKI
DB 746 PG 240
PB 6 PG 25
ERSKINE BLOUNT, JR & VICTORIA BLOUNT
DB 8-N PG 256
PB 6 PG 25
DAISY DYE
DB 660 PG 125
PB 6 PG 25
ISSAC CANTY & LUCY CANTY
DB 659 PG 166
PB 6 PG 25
ROBERT MCNEILL, JR
DB 1071 PG 67
PB 6 PG 31
JOE POTEATE & DIAN POTEATE
DB 8-A PG 220
PB 6 PG 31
SCOTLAND CONCRETE COMPANY, INC.
HUGH MCARN, JR & SUSAN MCARN
DB 632 PG 307
PB 6 PG 31
1 S F D W/ INDOOR POOL (GUEST HOUSE)
MATCH LINE -L_DETOUR- STA 20+50.00 SEE SHEET 2C

FOR -L_DETOUR- PROFILE, SEE SHEET 6

5/14/99

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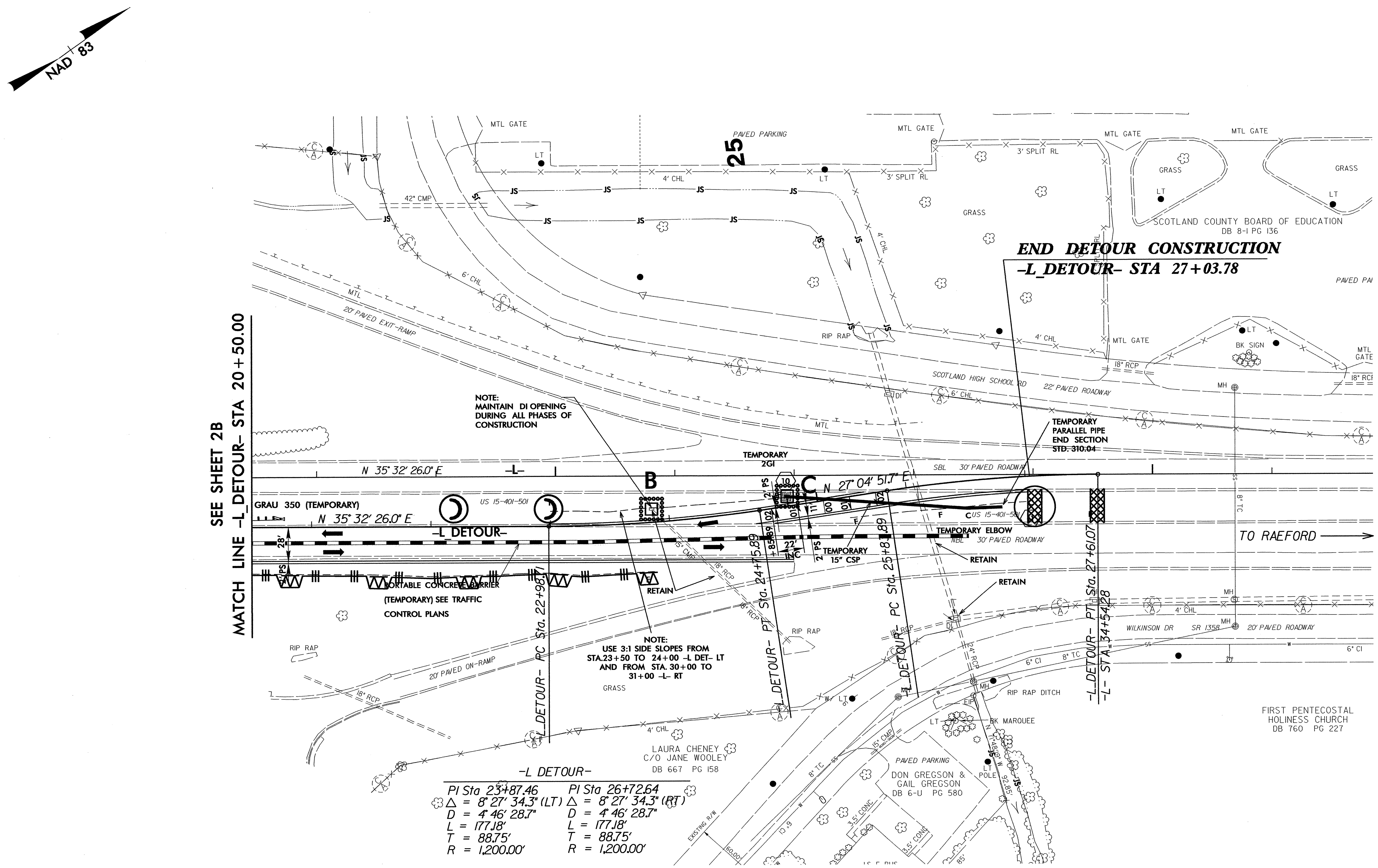
PROJECT REFERENCE NO.	SHEET NO.
B-4640	EC-7/CONST.2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L_DETOUR- PLAN SHEET



FOR -L_DETOUR- PROFILE, SEE SHEET 7

5/14/99

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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-4640	EC-8/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83

BEGIN TIP PROJECT B-4640
-L- STA 19+50.00

-L-
PI Sta 13+73.06
△ = 9° 42' 25.9" (RT)
D = 1° 29' 22.1"
L = 651.72'
T = 326.64'
R = 3,846.72'

PT Sta. 16+98.13

N 04°32'27" E 113.57'

S 78°48'03" E 193.89'

BM #2
-BY- STA 5+00
N 77° 58' 20.0" W Dist 149.28'
ELEV=228.45'
=-L- STA 22+54.11, 401.22' LT

POT Sta. 10+00.00

S 81°10'43.9" E

PC Sta. 10+86.13

-BY- 104

54 x 12 x 3
ID 4.1 F

CLEANOUT

-Y-
PI Sta 15+02.24
△ = 20° 34' 53.1" (LT)
D = 2° 30' 00.0"
L = 823.26'
T = 416.11'
R = 2,291.83'

END APPROACH SLAB
-L- STA 26+14.00

END BRIDGE
-L- STA 25+90.25

BEGIN SBG
STA. 25+98 -L- LT

BEGIN APPROACH SLAB
-L- STA 24+36.50

BEGIN BRIDGE
-L- STA 24+60.25

-L- STA 25+23.50 =
-Y- STA 14+85.57

BEGIN SBG
-L- STA. 23+88
RT

END SBG
-L- STA 24+46.19 RT

BEGIN SBG
-L- STA. 26+26 -L- RT

END SBG
-L- STA. 27+25
RT

MATCH LINE -L- STA 27+50.00
SEE SHEET 5

AUBREY MCCORMICK & ANNETTE MCCORMICK
DB 615 PG 20

WOODS

20' PAVED ON-RAMP

4' CHL

SBL 30' PAVED ROADWAY

US 15-401-501

NBL 30' PAVED ROADWAY

20' PAVED EXIT-RAMP

GRAVEL PARKING

CONC PARKING

15 Bk BUS

MTL CANOPY OVER GAS PUMP ISLANDS

FLOWER BED

MTL SIGN

TO LAUREL HILL

2" STEEL

ANNETTE MCCORMICK
DB 408 PG 8

DB 906 PG 67

15' ACCESS EASEMENT
N 8°37'50" E
38.00'

S 8°37'50" W 21.06'
103.37'

50.06'

15 F BUS

PLASTIC SIGN

SCOTLAND COUNTY BOARD OF EDUCATION
DB 8-I PG 136

NDW LCA'S

6' CHL

GRASS

CONC

12" RCP

CL B RIP RAP
1 TON
5 SY F.F.

GRADE TO DRAIN

ELBOW

15" CSP W/ELBOWS & ROD & LUG CONNECTORS

END EXPRESSWAY GUTTER
-L- STA 24+20.10 LT

BEGIN EXPRESSWAY GUTTER
-L- STA. 23+88 LT

NCGS "CLOVER"

RETAIN

B

C

-L-

N 35°32' 26.0" E

4% PS

12'

02

38'

10'

TAPER 8:1

M-350 FLARE

TYPE B-77

TYPE B-83

REMOVE

SHRUBS

CONC EW

MTL

2GI

4' CONC M & G

4' CAST IRON

FIBER OPTIC AND COPPER LINE

US 74 BUS/ NC 79

45' PAVED ROADWAY

CONC C & G

ICBL'S, SDL'S, SDW'S, INL'S

-EL-

-Y-

ERSKINE BLOUNT, JR & VICTORIA BLOUNT
DB 8-N PG 256
PB 6 PG 25

STANLEY TOMASZEWSKI & DOROTH TOMASZESKI
DB 746 PG 240
PB 6 PG 25

DAISY DYE
DB 660 PG 125
PB 6 PG 25

ISSAC CANTY & LUCY CANTY
DB 659 PG 166
PB 6 PG 25

ROBERT MCNEILL, JR
DB 1071 PG 67
PB 6 PG 31

JOE POTEATE & DIAN POTEATE
DB 8-A PG 220
PB 6 PG 31

HUGH MCARN, JR & SUSAN MCARN
DB 632 PG 307
PB 6 PG 31

SCOTLAND CONCRETE COMPANY, INC.
DB 7-X PG 571
PB 6 PG 31

SHED

POOL

PATIO

2 S F D

2 S F D W/ G

I S F D

I S F D W/ INDOOR POOL (GUEST HOUSE)

6' WD

10' BK DR

GR

ECM

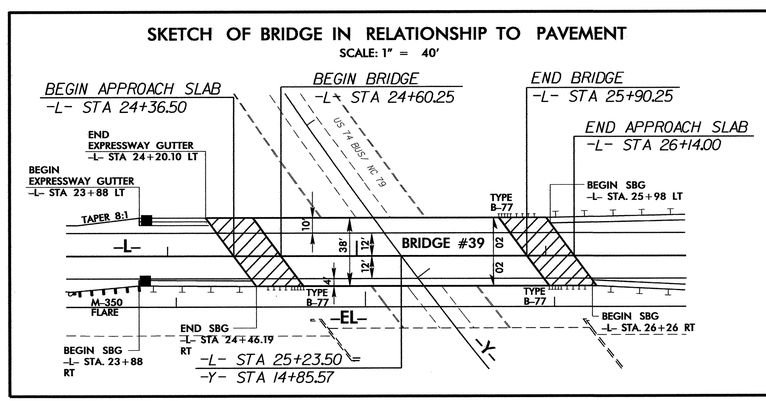
EIP

CMP

18" RCP

SKETCH OF BRIDGE IN RELATIONSHIP TO PAVEMENT

SCALE: 1" = 40'



FOR -L- PROFILE, SEE SHEET 6
FOR DETOUR, SEE SHEETS 2B AND 2C
FOR STRUCTURE PLANS, SEE SHEET S-1 TO S-

21-OCT-2011 14:42
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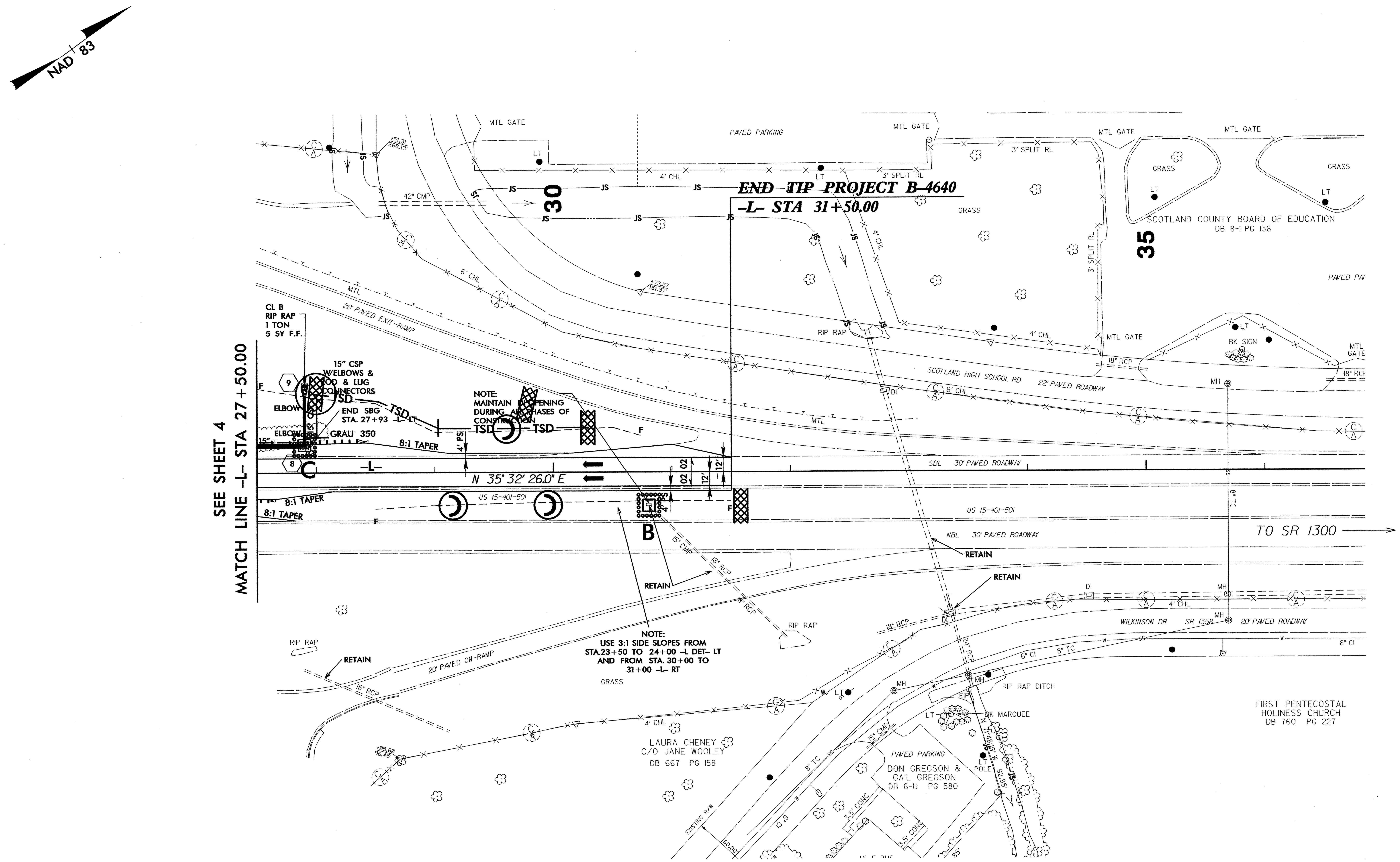
Annie Goodson
21 OCT 2011

PROJECT REFERENCE NO.	SHEET NO.
B-4640	EC-9/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5/14/99



NAD 83
END TIP PROJECT B-4640
-L- STA 31+50.00
SEE SHEET 4
MATCH LINE -L- STA 27+50.00
CL B RIP RAP 1 TON 5 SY F.F.
15" CSP W/ELBOWS & ROD & LUG CONNECTORS
END SBG STA. 27+93 -L- LT
GRAU 350
8:1 TAPER
NOTE: MAINTAIN OPENING DURING ALL PHASES OF CONSTRUCTION
N 35° 32' 26.0" E
US 15-401-501
SBL 30' PAVED ROADWAY
NBL 30' PAVED ROADWAY
TO SR 1300
RETAIN
NOTE: USE 3:1 SIDE SLOPES FROM STA.23+50 TO 24+00 -L DET- LT AND FROM STA. 30+00 TO 31+00 -L- RT
20' PAVED EXIT-RAMP
20' PAVED ON-RAMP
SCOTLAND HIGH SCHOOL RD 22' PAVED ROADWAY
SCOTLAND COUNTY BOARD OF EDUCATION
DB 8-I PG 136
WILKINSON DR SR 1358 20' PAVED ROADWAY
FIRST PENTECOSTAL HOLINESS CHURCH
DB 760 PG 227
LAURA CHENEY C/O JANE WOOLEY
DB 667 PG 158
DON GREGSON & GAIL GREGSON
DB 6-U PG 580
PAVED PARKING
MTL GATE
GRASS
RIP RAP
RIP RAP DITCH
BK MARQUEE
BK SIGN
30
35

FOR -L- PROFILE, SEE SHEET 6
FOR DETOUR, SEE SHEETS 2B AND 2C

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jenniferparish AT RFN2360978